

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

The research is aimed to answer two problem statements, they are:

1. What is the effects on English-Medium of Instruction (EMI) on students' English language proficiency in teaching science subjects at the Tenth Grade at *SMAN BANUA* Bilingual Boarding School Year 2017/2018?
2. How do the teachers overcome or solve the students' problems or difficulties in the application of EMI in teaching science subjects?

This chapter presented the findings of the study and explain the results of the research in relation to each of the research questions. The effects of English-medium instruction can be seen from several points of view. In order to get a more broader perspective of what has occurred during a year of studying science subjects using English as the language in the classroom for the participants in this research, along with looking at standardized test scores as a measure of improvement, the researcher examined English language ability of the students. While results of exams are often seen as objective and straight forward, the interpretation of them can differ depending on the viewer's relationship to them and how the data is presented.

Furthermore, the description of information based on the score result of recognized equivalent English test (TOEFL) or TOEFL-like questions and interview about the teachers perceive to be their students' English needs would be explained descriptive qualitatively. In addition, The result obtained from the test score of the students and the analysis of interview about teachers' perceive of their students' English need would be reported.

During the researcher conducted the research, the teachers were really interested to explain and describe about their students' way in learning English as medium of instruction throughout the science subjects. They explain to the researcher that this way of learning English would be useful for the students. They attempt to do something which make the subjects are conducted as well as possible. This is a real challenge for them.

1. The Analysis of the Students' Score of English Test

First research question asked wheather student's English language skills adequately improved during their first academic year of study in high school. To improve the learning outcomes, the school is trying to implement a system of matriculation in the very beginning of the week before the school is started. This matriculation is conducted in a week as introduction of English subject afterwards. After the matriculation, the school is also conducted a simple test to measure the students' progress of the study. The test was developed by English teachers that contain the following indicators :

a. Comprehension of Spoken English (Listening)

- Comprehension of a range of spoken text types
- Awareness of speaker's stance (listening)

b. Production of Written English (Writing)

- Sentence structure, grammar, and punctuation
- Vocabularies

c. Comprehension of Written English (Reading)

- Comprehension of a range of written text types
- Awareness of source

This matriculation test are held two times. In the first test, it took in a day after a week of matriculation has done in this school. It can also be said a day before the beginning of academic semester. This matriculation program is only for ten grade who are the fresh graduate from junior high school. So all the examination takers are only for the new students.

While the second test was held in a day before final exam of the second semester. Or it can also be known after a whole year academic in the first year in this school. After implementing the English Medium of Instruction at this school, so they can see the improvements of the students. In addition, they improve the score by finding the right strategies for the teachers to be implemented in EMI classes for the next semester. The students' score can be seen from the table below :

Table 4.1. Form of Boy student's score before and after learning science subjects using EMI.

Nu	Name of the Students	Before	After	Progress	Description
Boys					
1	AHMAD FAHMY	40	85	Increase	112,5 %
2	AHMAD FAUZI	35	77,5	Increase	121,4 %
3	AHMAD NASRULLAH	55	92,5	Increase	68,2 %
4	AHMAD RAIHAN FIRDAUS	40	80	Increase	100 %
5	AHMAD RIFA'T FADHILA	50	90	Increase	80 %
6	ANDIP BIMA FAHRIZA	45	80	Increase	77,8 %
7	DARUL SANDIKA SANJAYA	37,5	77,5	Increase	106,7 %
8	FAJAR MALIK NOOR AHMAD	40	80	Increase	100 %
9	JONATHAN BAYU SATWIKA	50	80	Increase	60 %
10	M. FADHIL ISCAHYADI	35	77,5	Increase	121,4 %
11	M. RAIHANUL FADILAH	35	90	Increase	157,1 %
12	MUHAMMAD ABDITYA ARGHANIE	30	85	Increase	183,3 %
13	MUHAMMAD IQBAL NUR	40	85	Increase	112,5 %
14	MUHAMMAD JULIAN FIRDAUS	40	87,5	Increase	118,7 %
15	MUHAMMAD NABIL SAPUTRA	37,5	85	Increase	126,7 %
16	MUHAMMAD NURHAFIZ SIDIQ	35	85	Increase	142,5 %
17	MUHAMMAD NUZULUDZ DZIKRA	37,5	77,5	Increase	106,7 %
18	MUHAMMAD RIFKI SAPUTRA	42,5	75	Increase	76,5 %

19	MUHAMMAD RIFQI SUHAIDI	55	95	Increase	72,7 %
20	NAIL OMPI	50	95	Increase	90 %
21	RAMADHANI AL-AMIN	25	70	Increase	180 %
22	RO'ID MUHAMMAD SYAFIQ	40	80	Increase	100 %
23	SHAFHA HIZBULLAH	27,5	87,5	Increase	218 %
24	ZAMRORI SUDI MAULANA	35	77,5	Increase	121,4 %
	Average	39,9	83,1		173,1 %

Table 4.2. Form of Girl student's score before and after learning science subjects using EMI.

Nu	Name of the Students	Before	After	Progress	Des- cription
GIRLS					
1	ALYA FATIMAH AZZAHRA	35	95	Increase	171,4 %
2	AMALIA FITRIYANA	35	70	Increase	100 %
3	ANNISA NUR SHADRINA	40	80	Increase	100 %
4	ANNISA YORIKASYIFA MAHARANI	27,5	87,5	Increase	218,1 %
5	CICILYA DOLFIANA RESDA	37,5	77,5	Increase	106,7 %
6	DESY AMELIA	42,5	90	Increase	111,8 %
7	FAKHRINA AMELIA	55	85	Increase	54,5 %
8	FATIMA AZ-ZARA	50	85	Increase	70 %
9	FIRDA ADELIA	40	87,5	Increase	118,8 %
10	HANA ZULFARIAH NURHAYATI	35	80	Increase	128,6 %
11	KRISTINA DEA IVANALIE	55	90	Increase	63,6 %
12	MARSHANDA APRILYA TAMBUNAN	40	80	Increase	100 %
13	MIRA AULIA	50	85	Increase	70 %

14	NOOR KUMALA	45	80	Increase	77,8 %
15	NUR PANDU PERTIWI	37,5	85	Increase	126,7 %
16	PUTU GALUH DHARAGITA	40	90	Increase	125 %
17	RADEN RORO RULI HASYIBIRHAYATI	55	85	Increase	54,5%
18	TASHAUFA ANNISA HAQ	50	85	Increase	70 %
	Average	42,7	84,3		103,8 %

The formula for calculating the percentage score or the increase of the test is :

$$\frac{\text{First Score}}{100} = A, \quad \frac{\text{Second Score}}{A} = B, \quad B - 100 = \text{Final Percentage}$$

As we can see from the data above, the improvements of students achievement is really significant in both boys and girls classes. It can be said that the achievement of the students in language proficiency is quite well. So, it can be concluded that the implementation of English Medium of Instruction at this school is proudly successful.

2. The Analysis of the Teachers' Strategies to Overcome Their Barrier in Teaching Science Subjects

The data presented seem to indicate that students are making much progress in increasing their English language proficiency as they study for their degrees with English as Medium of Instruction. The second question is to know how do the teacher overcome or solve the students' problems or difficulties in the application of EMI in teaching science subjects. Thus, the following questions were asked in kinds of interview.

1. Which subjects are you teaching?
2. What are things to be your barriers in delivering the science subjects materials in English-medium of instruction at your classroom?
3. Do you feel that your students' general language skills meet the expectations required of high school students studying in an English-medium environment?
4. How would you characterize your students' overall English proficiency and ability in each of the skill areas (listening, reading, writing, and speaking)?
5. Do you think that your students' English proficiency improves during their a year academic study using English-medium of instruction?
6. What's your strategy to overcome the student's problem in the science class using English?

The answers to these questions would be addressed in the following sections in order to understand more from a content teachers' perspective issues aurroundings their students' English language ability and what happens regarding language development during EMI.

Furthermore, to get more understanding of English-medium of instructions, the researcher also did some interviews of students' perspective in this school. The following questions were asked to the students:

1. Do you know why this school implements English-medium of instruction in science subjects?

2. What are things to be your barriers in learning the science subjects materials in English-medium of instruction in the classroom?
3. Do you think that your English proficiency improves during their a year academic study using English-medium of instruction?

The answer to these questions would be explained later on the discussion part in this chapter.

B. Discussion

In the problem of statement, there are two statements that have to be answered in this research. The first research question asked wheather student's English language skills adequately improved during their first academic year of study in high school. The second question is to know what the teachers' perspective are regarding their students' language ability. Throughout the language teaching history, teaching methods, textbooks, grammatical paradigms were cited as the primary factors in successful learning.

In recent years, language teaching focused on the role of learner in the process. The researcher got the data from the result scores of the students at the beginning and the end of the academic year and the interview to the teachers to know their perspective towards the students' language ability before, during and after the process of EMI is conducted in all science subjects at *SPK SMAN BANUA BILINGUAL BOARDING SCHOOL KALSEL*.

As the researcher observed from the teacher, all the teacher did some strategies to make the students can learn and study science subject effectively. Some encorage the students to get more motivational thing inside, while others are did something themselves for helping the students' understanding in their classroom.